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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/726,239	11/29/2000	James F. Munro	1571.2001-002	9606

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EXAMINER
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LEE, Y MY QUACH

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/726,239

Applicant(s)

MUNRO ET AL.

Examiner

Y Quach Lee

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 13-15, 19-26, and 34 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 10-12, 16-18, 27, 30 and 31 is/are rejected.
- 7) ☒ Claim(s) 5-9, 28, 29, 32 and 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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***DETAILED ACTION***

***Response to Arguments***

1. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 4, 10 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Shinohara et al.

Shinohara et al. show a light source (B), a substantially solid light guide (11) receiving light radiating from the light source, a prism array (132, 142) including linear prisms for redirecting light in a first direction, the prism array including peaks and valleys (figures 9, 11, and 12 ...) forming a cross sectional profile that periodically alternates orientation along the light guide (the cross sectional profile of figure 11 shows the surfaces 16a to 15c (16a, 15b, 16b and 15c), then alternates with the surfaces 16c to 15a (16c and 15a), and then continues this pattern of surfaces along the light guide while the cross sectional profile of figures 12a and 12b show the surfaces 16a to 15b (16a and 15b), then alternates with the surfaces 16b to 15a (16b and 15a), and then periodically continues this pattern of surfaces along the light guide. Alternatively, the cross sectional profile of figures 12a and 12b show the surfaces 15a to 16a (15a and 16a), then alternates with the surfaces 15b to 16b (15b and 16b), and then periodically continues this pattern of surfaces along the light guide), and the prism array disposed on a top surface (figure 4) of the light guide.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara et al.

Shinohara et al. disclose the invention substantially as claimed with the exception of having the included angles as claimed. It would have been obvious to one having ordinary skill in the art at the time the invention was made to state the optimum value of the angles of the prisms, since discovering an optimum value of a result effective variable involves only routine skill in the art to select the suitable and optimum value of the angles so that appropriate luminance can be received, provided and directed. Also, it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable range involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara et al.

Shinohara et al. disclose the invention substantially as claimed with the exception of having the light guide including polymethyl methacrylate. To have the material as claimed would have been an obvious matter of design choice which provides no unusual, unobvious and or unexpected result and is therefore deemed to fall within a purview of an ordinary engineering design technique to select the suitable material including polymethyl methacrylate for the light guide since it is known that this material is excellent in mechanical strength as well as refractoriness, and is so transparent that transmittance of a visible ray is superior.

7. Claims 16 to 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara et al.

Shinohara et al. disclose the invention substantially as claimed with the exception of having more than one plane on at least one facet, and the curved prism tips and valleys. To include more than one plane on at least one facet and the curved prism tips and valleys would have been an obvious matter of design choice which provides no unusual, unobvious and or unexpected result and is therefore deemed to fall within a purview of an ordinary engineering design technique to select the number of planes for the facet and the different orientations for the tips and valleys to provide different optimum effects of the luminance.

8. Claims 27 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara et al.

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Shinohara et al. disclose the invention substantially as claimed with the exception of having the prism array tilted. To have a tilted prism array would have been an obvious matter of design choice which provides no unusual, unobvious and or unexpected result and is therefore deemed to fall within a purview of an ordinary engineering design technique to select the suitable angle or orientation of the prisms to provide different optimum directions and effects of the luminance.

9. Claims 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara et al.

Shinohara et al. disclose the method as claimed by providing a light source (B), receiving light radiating from the light source in a light guide (11), and redirecting the light in a first direction with a prism array (132, 142) including a cross sectional profile that periodically alternates orientation along a first axis with the exception of having the prism array tilted. To have a tilted prism array would have been an obvious matter of design choice which provides no unusual, unobvious and or unexpected result and is therefore deemed to fall within a purview of an ordinary engineering design technique to select the suitable angle or orientation of the prisms to provide different optimum directions and effects of the luminance.


10. Claims 5 to 9, 28, 29, 32 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Y Quach Lee whose telephone number is 703-308-1939. The examiner can normally be reached on Tuesday and Thursday from 8:30 am to 4:30 pm.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Y. Q.  
September 22, 2003

  
Y Quach Lee  
Patent Examiner  
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